

Sheet 1 of 9

FORM PTO-1449  U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  INFORMATION DISCLOSURE STATEMENT BY APPLICANT  (Use several sheets if necessary)	ATTY. DOCKET NO. I-2-72.5US	SERIAL NO. Not Yet Known
	APPLICANT Donald L. Schilling	
	FILING DATE Not Yet Known	GROUP <del>Not Yet Known</del> 2665

J6821 U.S. PTO  
 10/07/1998  
 02/08/02

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
AW	AA*	3	7	3	1	1	9	8	5/73	Blasbalg	375	1X	
	AB*	3	8	1	9	8	7	2	7/74	Hamrich	179	41	
	AC*	3	8	3	1	0	1	3	8/74	Alsup et al.	235	181	
	AD*	3	8	3	8	3	4	2	9/74	Bjorkman	325	32	
	AE*	3	9	0	0	7	2	1	8/75	Speiser et al.	235	156	
	AF*	4	0	4	1	3	9	1	8/77	Deerkoski	325	30	
	AG*	4	0	5	2	5	6	5	10/77	Baxter et al.	375	1X	
	AH*	4	1	1	2	3	7	2	9/78	Holmes et al.	375	1X	
	AI*	4	1	9	3	0	3	1	3/80	Cooper	455	38	
	AJ*	4	2	2	2	1	1	5	9/80	Cooper et al.	375	1	
	AK*	4	2	3	8	8	5	0	12/80	Vance	370	27	
	AL*	4	2	4	7	9	4	2	1/81	Hauer	375	25	
	AM*	4	2	7	9	0	1	8	7/81	Carson	375	1X	
	AN*	4	2	8	5	0	6	0	8/81	Cobb et al.	375	1	
	AO*	4	3	9	2	2	2	0	7/83	Hirosaki	370	18	
	AP*	4	3	9	2	2	3	2	7/83	Andren et al.	375	86	
	AQ*	4	4	1	8	3	9	3	11/83	Zscheile, Jr.	364	724	
	AR*	4	4	1	8	4	2	5	11/83	Fennel, Jr. et al.	455	27	
	AS*	4	4	2	5	6	4	2	1/84	Moses et al.	370	76	
	AT*	4	4	3	5	8	2	1	3/84	Ito et al.	375	1	
	AU*	4	4	5	5	6	5	1	6/84	Baran	370	104	

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	APPLICANT Donald L. Schilling	
	FILING DATE Not Yet Known	GROUP <del>Not Yet Known</del> 2685

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
644	AV*	4	4	7	9	2	2	6	10/84	Prabhu et al.	375	1	
	AW*	4	4	8	4	3	3	5	11/84	Mosley et al.	375	1	
	AX*	4	5	1	2	0	1	3	4/85	Nash et al.	370	69.1	
	AY*	4	5	2	3	3	1	1	6/85	Lee et al.	370	69.1	
	AZ*	4	5	3	3	1	3	0	11/85	Kato	370	41	
	BA*	4	5	3	8	2	8	0	8/85	Mosley, Jr. et al.	375	1	
	BB*	4	5	6	3	7	7	4	1/86	Gloge	455	607	
	BC*	4	5	9	9	4	9	0	7/86	Cornell et al.	179	2	
	BD*	4	6	0	6	0	3	9	8/86	Nicolas et al.	375	1	
	BE*	4	6	1	2	6	3	7	9/86	Davis et al.	370	95	
	BF*	4	6	2	1	3	6	5	11/86	Chiu	375	1	
	BG*	4	6	3	0	2	8	3	12/86	Schiff	375	1	
	BH*	4	6	4	7	8	6	3	3/87	Skudera, Jr. et al.	329	112	
	BI*	4	6	4	9	5	4	9	3/87	Halpern et al.	380	032	
	BJ*	4	6	5	3	0	6	9	3/87	Roeder	380	31	
	BK*	4	6	6	0	1	6	4	4/87	Leibowitz	364	728	
	BL	4	6	6	5	4	0	4	5/87	Christy et al.	342	463	
	BM*	4	6	7	2	6	0	5	6/87	Hustig et al.	370	76	
	BN*	4	6	7	2	6	2	9	6/87	Beier	375	1	
	BO*	4	6	7	2	6	5	8	6/87	Kavehrad et al.	379	63	

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	<p align="center">APPLICANT Donald L. Schilling</p>	
	<p align="center">FILING DATE Not Yet Known</p>	<p align="center">GROUP <del>Not Yet Known</del> <u>2665</u></p>

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<u>10-44</u>	BP*	4	6	7	5	8	3	9	6/87	Kerr	364	821	
	BQ*	4	6	8	0	7	8	5	7/87	Akiyama et al.	379	057	
	BR*	4	6	9	1	3	2	6	9/87	Tsuchiya	375	1	
	BS*	4	6	9	7	2	6	0	9/87	Grauel et al.	370	18	
	BT*	4	7	0	3	4	7	4	10/87	Foschini et al.	370	18	
	BU*	4	7	0	7	8	3	9	11/87	Andren et al.	375	1	
	BV*	4	7	1	8	0	8	0	1/88	Serrano et al.	379	59	
	BW*	4	7	3	0	3	4	0	3/88	Frazier, Jr.	375	1	
	BX*	4	7	4	2	5	1	2	5/88	Akashi et al.	370	96	
	BY*	4	7	5	2	9	3	9	6/88	Amoroso et al.	375	1	
	BZ*	4	7	5	9	0	3	4	7/88	Nagazumi	375	1	
	CA*	4	7	6	5	7	5	3	8/88	Schmidt	379	60	
	CB*	4	7	8	9	9	8	3	12/88	Acampora et al.	370	96	
	CC*	4	7	9	9	2	5	2	1/89	Eizenhoffer et al.	379	59	
	CD*	4	7	9	9	2	5	3	1/89	Stern et al.	379	59	
	CE*	4	8	0	5	2	0	8	2/89	Schwartz	379	93	
	CF*	4	8	0	7	2	2	2	2/89	Amitay	370	85	
	CG*	4	8	3	7	8	0	2	6/89	Hiashiyama et al.	379	62	
	CH*	4	8	3	7	8	2	3	6/89	Ham et al.	380	34	
	CI*	4	8	4	1	5	4	5	6/89	Endo et al.	375	1	
	CJ*	4	8	4	3	6	1	2	6/89	Brusch et al.	375	1	

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	APPLICANT Donald L. Schilling	
	FILING DATE Not Yet Known	GROUP <del>Not Yet Known</del> 2665

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EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
ALH	CK*	4	8	5	0	0	3	6	7/89	Smith	455	179	
	CL*	4	8	6	0	3	0	7	8/89	Nakayama	375	1	
	CM*	4	8	6	2	1	7	8	8/89	Sturza et al.	342	357	
	CN*	4	8	6	6	7	3	2	9/89	Carey et al.	375	1	
	CO*	4	8	9	4	8	4	2	1/90	Broekhoven et al.	375	1	
	CP*	4	9	0	1	3	0	7	2/90	Gilhousen et al.	370	18	
	CQ*	4	9	0	5	2	2	1	2/90	Ichiyoshi	375	1X	
	CR*	4	9	1	2	7	2	2	3/90	Carlin	375	1	
	CS*	4	9	1	4	6	5	1	4/90	Lusignan	370	69.1	
	CT*	4	9	2	2	5	0	6	5/90	McCallister et al.	375	1	
	CU*	4	9	3	0	1	4	0	5/90	Cripps et al.	375	1	
	CV*	4	9	3	2	0	3	7	6/90	Simpson et al.	375	1	
	CW*	4	9	3	3	9	5	3	6/90	Yagi	375	1	
	CX*	4	9	5	8	3	5	9	9/90	Kato	375	1	
	CY*	4	9	6	2	5	0	7	10/90	Renshaw	375	1	
	CZ*	4	9	6	9	1	5	9	11/90	Belcher et al.	375	1	
	DA*	4	9	7	7	5	7	7	12/90	Arthur et al.	375	1	
	DB*	4	9	7	7	5	7	8	12/90	Ishigaki et al.	375	1	
	DC*	4	9	7	9	1	8	3	12/90	Cowart	375	1	
	DD*	4	9	8	4	2	4	7	1/91	Kaufmann et al.	375	1	

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	<b>APPLICANT</b> Donald L. Schilling	
	<b>FILING DATE</b> Not Yet Known	<b>GROUP</b> <del>Not Yet Known</del> 2885

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
Am	DE*	5	0	0	5	1	6	9	4/91	Bronder et al.	370	76	
	DF*	5	0	1	6	2	5	5	5/91	Dixon et al.	375	1	
	DG*	5	0	1	6	2	5	6	5/91	Stewart	375	1	
	DH*	5	0	2	2	0	4	6	6/91	Morrow, Jr.	375	1	
	DI*	5	0	2	2	0	4	7	6/91	Dixon et al.	375	1	
	DJ*	5	0	2	3	8	8	7	6/91	Takeuchi et al.	375	1	
	DK*	5	0	2	9	1	8	1	7/91	Endo et al.	375	1	
	DL*	5	0	3	6	3	3	0	7/91	Imae et al.	342	357	
	DM*	5	0	4	0	2	3	8	8/91	Comroe et al.	455	033	
	DN*	5	0	4	1	8	3	3	8/91	Weinberg	342	357	
	DO*	5	0	4	8	0	5	2	9/91	Hamatsu et al.	375	1	
	DP*	5	0	5	6	1	0	6	10/91	Wang et al.	375	1	
	DQ*	5	0	5	6	1	0	9	10/91	Gilhousen et al.	375	1	
	DR*	5	0	6	2	1	2	1	10/91	Kurihara et al.	375	1	
	DS*	5	0	6	3	5	6	0	11/91	Yerbury et al.	370	18	
	DT*	5	0	6	7	1	4	7	11/91	Lee	379	60	
	DU*	5	0	7	3	9	0	0	12/91	Mallinckrodt	375	1	
	DV*	5	0	7	7	7	5	3	12/91	Grau, Jr. et al.	375	1	
	DW*	5	0	7	7	7	5	4	12/91	Namioka	375	1	
	DX*	5	0	9	3	8	4	0	3/92	Schilling	375	1	
	DY*	5	1	0	1	5	0	1	3/92	Gilhousen et al.	455	33	
	DZ*	5	1	0	3	4	5	9	4/92	Gilhousen et al.	375	1	

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	APPLICANT Donald L. Schilling	
	FILING DATE Not Yet Known	GROUP Not Yet Known <u>2685</u>

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
<u>ALW</u>	EA*	5	1	0	9	3	9	0	4/92	Gilhousen et al.	375	1	
	EB*	5	1	2	1	4	0	7	6/92	Partyka et al.	375	1	
	EC*	5	1	5	3	5	9	8	10/92	Alves, Jr.	342	352	
	ED*	5	1	6	1	7	8	9	11/92	Rogers	375	1	
	EE*	5	1	6	4	9	8	5	11/92	Nysen et al.	375	1	
	EF*	5	1	6	6	6	9	4	11/92	Russell et al.	342	457	
	EG*	5	1	6	6	9	5	1	11/92	Schilling	375	1	
	EH*	5	1	7	9	5	7	1	1/93	Schilling	375	1	
	EI*	5	1	7	9	5	7	2	1/93	Schilling	375	1	
	EJ*	5	1	8	5	7	6	2	2/93	Schilling	375	1	
	EK*	5	1	9	3	1	0	1	3/93	McDonald et al.	375	200	
	EL*	5	2	1	2	8	0	5	5/93	Comroe et al.	455	33.1	
	EM*	5	2	1	6	4	2	9	6/93	Nakagawa et al.	342	250	
	EN*	5	2	1	8	6	1	8	6/93	Sagey	375	1	
	EO*	5	2	2	4	1	2	0	6/93	Schilling	375	1	
	EP*	5	2	2	8	0	5	3	7/93	Miller et al.	375	200	
	EQ*	5	2	2	8	0	5	6	7/93	Schilling	375	1	
	ER*	5	2	4	7	7	0	2	9/93	Su et al.	455	34	
	ES*	5	2	5	7	2	8	3	10/93	Gilhousen et al.	375	1	
	ET*	5	2	6	0	9	6	7	11/93	Schilling	375	1	

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	APPLICANT Donald L. Schilling	
	FILING DATE Not Yet Known	GROUP <del>Not Yet Known</del> <u>2065</u>

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRI ATE
<u>ALH</u>	EU*	5	2	6	3	0	4	5	11/93	Schilling	375	1	
	EV*	5	2	6	5	1	2	1	11/93	Stewart	375	99	
	EW*	5	2	6	7	2	4	4	11/93	Messerschmitt et al.	370	95	
	EX*	5	2	7	4	6	6	5	12/93	Schilling	375	1	
	EY*	5	3	0	3	2	8	6	4/94	Weideman	375	1	
	EZ*	5	3	3	9	3	3	0	8/94	Mallinckrodt	375	205	
	FA*	5	3	5	1	2	6	9	9/94	Schilling	375	1	
	FB*	5	3	6	5	5	4	4	11/94	Schilling	375	7	
	FC*	5	4	1	0	5	6	8	4/95	Schilling	375	205	
	FD*	5	4	2	0	8	9	6	5/95	Schilling	375	205	
	FE*	5	4	6	9	4	6	8	11/95	Schilling	375	300	
	FF*	5	5	0	6	8	6	4	4/96	Schilling	375	205	

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
													YES	NO
<u>ALH</u>	FG*	0	3	6	7	4	5	2		Europe				
	FH*	8	3	0	2	5	3	3	7/83	WPO				
	FI*	0	2	6	5	1	7	8	4/88	Europe				
	FJ*	2	1	7	3	3	7	7A	10/86	U.K.				

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## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

644	FK*	In the matter of InterDigital Technology Corporation v. Oki America et al.; Defendant Qualcomm Incorporated's Supplemental Responses to Plaintiff's Interrogatories 3, 5, 12 and 13; U.S. District Court for the Eastern District of Pennsylvania, Civil Action No. 93-CV2004 (Bartle, J.)
	FL*	Frequenz, no. 9/10, 20 September 1986, Berline De, pages 255-259, Eizenhöfer 'Anwendung der Spread-Spectrum-Technik in dem hybriden Mobilfunksystem MATS-D'
	FM*	Fluhr, Z.C. and Porter, P.T., "Advanced Mobile Phone Service: Control Architecture", The Bell System Technical Journal (Jan. 1979), Vol. 58, No. 1, pp. 43-69.
	FN*	DeGaudenzi, R. and Viola, R., "A Novel Code Division Multiple Access System for High Capacity Mobile Communications Satellites", ESA Journal (1989), Vol. 13, pp. 303-322.
	FO*	Stiffler, J.J., Theory of Synchronous Communications (Prentice-Hall, Inc., New Jersey), table of contents listing.
	FP*	Scholtz, Robert A., "The Origins of Spread-Spectrum Communications", IEEE Transactions on Communications (May 1982), Vol. Com. 30, No. 5; pp. 822-855.
	FQ*	Nettleton, Raymond W., Spectral Efficiency in Cellular Land-Mobile Communications: A Spread-Spectrum Approach (1978) (unpublished Ph.D. Dissertation, Purdue University.
	FR*	Cooper, George R. and Nettleton, Ray, W., "Cellular Mobile Technology: The Great Multiplier," IEEE Spectrum, June 1983, pp. 30-37.
	FS*	Blasbalg, H., "A Comparison of Pseudo-Noise and Conventional Modulation for Multiple-Access Satellite Communications," IBM Journal of Research Development, Vol. 9, No. 4, Jul. 1965, pp. 241-255.
	FT*	Dixon, Robert C., Spread Spectrum Systems (John Wiley & Sons, Inc.: New York, 3d ed. 1994), pp. 412-413.
	FU*	The International Dictionary of Physics and Electronics (D. Van Nostrand Co.: Princeton, NJ, 2d ed. 1961), pp. 612, 952.

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## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSL ATION
					YES NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>FW*</i>	Robinson, Vester, Solid-State Circuit Analysis (Reston Publishing Co.: Reston, VA, 1975), pp. 309-314.
<i>FW*</i>	Alavi, Hossein, Power Control and Interference Management in a Spread-Spectrum Cellular Mobile Radio System (1984) (Unpublished Ph.D. Dissertation, Michigan State University).
<i>FX*</i>	M.S. Pursley, "Performance Evaluation for Phase-Coded Spread-Spectrum Multiple-Access Communication - Part I: System Analysis", IEEE Transactions on Communications, Com-25, No. 8, August, 1977.
<i>FY*</i>	J.M. Holtzman, "A Simple, Accurate Method To Calculate Spead-Spectrum Multiple-Access Error Probabilities", IEEE Transactions on Communications, Vol. 40, No. 3, March 1992.

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